



JOHN KENDALL 2024-02-03

## SELLING CLIMATE VAPORWARE TO SOCIALISTS

ECONOFICTION CLIMATE, CLIMATE CRISIS, GREEN DEAL, OIL

Earlier this month, the Biden administration announced that \$1.2 billion of the \$3.5 billion earmarked in last year's infrastructure bill for carbon capture and storage (CCS) investments will be made available to two "commercial-scale" direct air capture (DAC) facilities. The two initiatives are Project Cypress, a facility in Louisiana run by Battelle in partnership with ClimeWorks and Heirloom, and South Texas DAC Hub, run in West Texas by Occidental Petroleum and its (recently acquired) partner Carbon Engineering. Both are purportedly designed to capture around 1 million metric tons of carbon dioxide annually. Before either project has captured anything at all, however, the administration is already touting them as helping put President Biden's "ambitious plan for a net-zero emissions economy" on track toward capturing "between 400 million and 1.8 billion metric tons of CO<sub>2</sub>" annually by 2050. Given current DAC facilities record their annually captured carbon in the *low thousands* of tons, I would maybe wait a few years before placing any bets.

Writing for *Jacobin*, Dr. Matt Huber responded to the news by doing the typical 'look, yea, green capitalism is bad, but imagine if a socialist government ran those things' thing. That would be awesome, yes. Unfortunately, that's not what is happening. Instead, as the "environmentalists" (a term which Dr. Huber uses pejoratively to describe those on the "climate left" he disagrees with) were correct to worry would happen, an oil company, Oxy, now gets hundreds of millions of dollars to develop capture carbon technology which it can use to extract more oil.

It seems political reality has moved against those who spend so much of their time congratulating themselves on their hard-nosed realism about climate change and their 'getting serious' about geo-engineering—with the rollout of new flashy public investments in DAC, I regret to inform you Big Oil has won again. This development didn't require clairvoyance, of course; it just required actually listening to them (the oil industry being a far, far more powerful lobby in the US than the "environmentalists" which provoke so much ire in Dr. Huber). Oxy's CEO Vicki Hollub has been absolutely giddy about the "license" DAC

grants the oil industry to continue to operate in the coming decades. She, along with numerous other big players in the oil industry, have been outspoken supporters of the IRA bill precisely because of its inclusion of a suite of “carrots” such as the expansion of 45Q (CCS) tax credits.

Well, Dr. Huber concedes, the “cynical view” of the “environmentalists” might have been prescient this time around, but they’re still wrong...in principle, because of the “moralistic classification scheme” (?) they apply to climate tech: solar power good, carbon capture bad. Piggybacking off of Dr. Holly Buck—a professor at the University of Buffalo who also moonlights as an analyst at the Department of Energy’s Office of Carbon Management—it is not, Dr. Huber claims, a question of *which* technologies but *how* they are implemented. The distinction is completely mystifying to me: it is *both, of course*. Nuclear bombs could also rapidly scale down carbon emissions, in that they would quickly kill off a lot of anthropogenic carbon emitters, but, presumably, both professors would choose not to elect this technology no matter ‘*how*’ it was implemented (and likely for ‘moralistic’ reasons).

So yes, in fact, investing in DAC concerns making a political choice about *which* technological pathways conform best to the sorts of social transformations we would like to bring about. ‘Material analysis’ does not excuse us from the need to make choices, and choices discriminate, definitionally—resources spent on DAC are resources not spent on something else. So the real question is: what are the sorts of social transformations we think will be realized through DAC? More broadly, are we telling “environmentalists” to fall in line behind Technological Progress as a not particularly subtle means of *simply avoiding* the much harder question of articulating a coherent, emancipatory vision of social transformation?

You might be able to guess my answer to this second question is yes. Dr. Huber’s assessment of the “environmentalist” response to carbon capture makes this avoidance quite clear, precisely in his accusation of “moralism.” Truthfully, I have never grasped this line of argumentation from ‘Orthodox’ Marxists. Of course a re-evaluation of norms is at stake in *social* transformation!

It is not just, as Dr. Huber says, because capitalism has a “structural tendency to undermine the ecological conditions of production” that a political response is in response provoked, but also because the resulting contradiction produces a fundamentally *undesirable* way of life for those actually living it. But to say so, to say the *desire* for universal emancipation is necessarily expressed in the *subjectivity* of the working class, is to concede what Marxists like Dr. Huber refuse to concede, that the appearance of technology as ‘value-neutral’ is not only a historically specific norm but, as István Mészáros has spelled out vividly, *the* foundational norm of bourgeois political economy.

As I’ve alluded to elsewhere, it is remarkable that so many ‘materialists’ remain so inexcusably idealist on this point, as if the technologies we use to reproduce society were somehow spared from the class relation rather than being *its very materialization*. As Marx himself wrote (in the chapter in *Volume I* on co-operation), the whole history of technological development beginning in the 19th-century could be written as a history of the development of weapons which capital wields against the working class. Against this, Marxists like Dr. Huber and

progressive technocrats like Buck continue to hypostatize technology, viewing it as something which an adequately socialist institution can just pick up and transmogrify into a 'public good' on a whim if, one day, they happen to be given the chance. Matters venture into farce in the case of DAC: it is not even an existing technology! It is quite literally climate vaporware which, for ten-plus years now, has been successfully marketed by venture capitalist start-ups to the oil industry.

My point here is not to deny that *any* capitalist technology is worth 'appropriating', but rather that the *political* act of appropriation is a question not just of the 'implementation' of technology as some neutral, standalone object in the world but also a question of its *transformation*. Again, as I argued in my previous post, it is a question of the *social form* of technology under capitalism which must be scrutinized, and not just in terms of 'how it is used' or 'who benefits' but also at the level of its *technical specifications*. Technical specifications impact how social production and reproduction are determined; hence, they too must be open to critical inquiry concerning their alleged compatibility with a world shared in common.

So, yes, let us 'get serious' about carbon capture, namely, by discussing its technical specifications. First, we should be careful not to confuse fundamentally different technologies conflated by this term. To her credit, Dr. Buck does at least make note of two markedly different pathways: point-source capture and direct/ambient air capture (in praising DAC in the aforementioned *Jacobin* article, Dr. Huber notably does not make this distinction). The former techniques are applied to the exhaust of major emitters of carbon emissions, such as power plants and heavy industrial plants, e.g. cement manufacture. The latter consist of facilities which scrub CO<sub>2</sub> from ambient air. Already, we should note that there are massively different concentrations of CO<sub>2</sub> at stake here: flue gas, with significant concentrations of CO<sub>2</sub> (~10% of total combustion exhaust at a typical natural gas plant), vs. ambient air, with an average CO<sub>2</sub> concentration of 421 parts *per million*. As I will return to shortly, this makes for a *dramatic* discrepancy between the two technologies in terms of energy costs per ton of captured CO<sub>2</sub>.

The two pathways also demand different and not necessarily coincident infrastructural geographies. Thousands of plants which could be retrofitted with CCS tech already exist, but they are situated in locations which do not have any existing infrastructure to allow for the efficient transportation of captured carbon away from points of emission and into 'geologically stable' storage sites. The existing infrastructure for doing so is very sparse, consisting of CO<sub>2</sub> pipelines which connect long-running CCS facilities to oil and gasfields, mostly in the mid-Continent. Take, for instance, the Great Plains Synfuels Plant, operated by the Dakota Gasification in Beulah, North Dakota, which has since the '80s piped sequestered carbon into the Weyburn oil field in Saskatchewan, Canada, where it is used for enhanced oil recovery. The North American oil industry is, of course, well aware of this very limited geography of CO<sub>2</sub> pipelines and will continue to lobby the federal government to keep as many CCS-equipped facilities linked to oilfields as possible—gleefully taking advantage of the fact that some of the storage sites deemed most 'geologically stable' just so happen to be 'depleted' oil and gasfields.

Now, one ostensible advantage to DAC is that global atmospheric circulation allows for

facilities to be built much closer to sites of permanent sequestration, hence reducing the need to build out very expensive intercontinental pipeline infrastructure. But such geographical flexibility comes with the high cost of attempting to scrub extremely sparse CO<sub>2</sub> particulates out of ambient air. Direct air capture has not been proven at 'commercial scale' at all: In 2022, there were 18 DAC facilities across Canada, the US, and Europe capturing, in total, 0.01 MtCO<sub>2</sub>. At a current energy cost of 1,200 kilowatt-hours to capture a ton of carbon, 1 billion metric tons of CO<sub>2</sub> per annum would require more energy than the renewable sector currently generates. Once again, this is not a proven technology at anything close to an industrial scale, yet it is already being utilized in increasingly mystified carbon accounting schemes to miraculously reveal a 'net zero' bottom line by 2050. I am sorry to tell you that there is, as it currently stands, simply no good reason to believe this will actually happen.

It is worth comparing DAC's virtual non-existence with point-source capture, which accounted for 43 MtCO<sub>2</sub> of captured carbon in 2021. And now compare *both* with the annual global emission tally of 36 *billion* metric tons of CO<sub>2</sub>. Together, this means that, at present, 0.12% of global emissions are being sequestered annually. Here, if we are to believe Drs. Huber and Buck, this paltry track record is testament to the fact that the industry refuses to invest in carbon capture because it is not profitable to do so and, worse, it would make them less competitive against renewable energy. I am not sure who either have actually talked to in the industry, but the big players have, again, been some of *the most* avid supporters of DAC. Years before the IRA bill in 2019, Chevron and Oxy poured millions into Carbon Engineering as it continued developing its pilot DAC project in Squamish, British Columbia. Exxon, Shell, ConocoPhillips, and Equinor have all made recent multimillion dollar investments in carbon capture. At this year's CERAWEEK, one of the most important energy conferences in the world, carbon capture was a vibrant and extensive topic of conversation.

The issue in scaling up is not for lack of enthusiasm but rather the result of a series of technical hurdles which extend well beyond any individual oil firm to deal with: 1) the aforementioned existing infrastructural geography for CO<sub>2</sub> transmission, 2) subsequent lack of access to storage sites, and 3) lack of buyers for sequestered CO<sub>2</sub>. As always, when the anarchy of production cannot coordinate an effective response to its own contradictory tendencies, here comes the state to offer billions of dollars to sort things out. Even then, however, the response thus far has been embarrassingly tepid: increasing captured carbon to stated goals of 1 billion metric tons by 2050 would require not only billions of dollars more poured into CCS tech than current investment levels but likely *trillions* more for a lightspeed expansion of CO<sub>2</sub> pipeline infrastructure, in addition to the creation from scratch of an entirely new captured carbon markets and, one can hope, as yet unproven industrial applications for captured CO<sub>2</sub> that extend its use beyond enhanced oil recovery. All the while, we still run into the problem of requisite energy consumption from increased carbon capture, a barrier which takes any scenario banking on a rapid scaling-up of DAC from extremely improbable to sci-fi movie levels of suspending disbelief. DAC 'works' now precisely because its total energy consumption is marginal, given its current meager goals.

More to the point: DAC is a fever dream, the latest of innumerable attempts by capital to close the materials loop by way of its own self-expansion. It is firmly entrenched in private-public

partnerships which correctly assess no tangible threat of ‘technological appropriation’ precisely because DAC was designed, from the bottom-up, for such market-mediated coordination (oil → CO<sub>2</sub> → oil, ad infinitum). If socialists had the political power to ‘take over’ DAC and treat it as a public good, surely much better technical solutions would be downstream of that newfound capacity, in conformity with a vision of social transformation heterogeneous to the one from which DAC emerges. Why, then, bother wasting time running defense for venture capitalists? They’re doing just fine with all this stuff on their own.

Long story short: when green venture capitalists tell you who they are, you can just believe them. Not every harebrained idea they cook up is worth plucking out of their delirium and plugging into your Green New Deal. Sometimes they really are just bad ideas.

taken from here: [https://phases.substack.com/p/selling-climate-vaporware-to-socialists?utm\\_source=profile&utm\\_medium=reader2](https://phases.substack.com/p/selling-climate-vaporware-to-socialists?utm_source=profile&utm_medium=reader2)

← PREVIOUS   NEXT →

---

## META

CONTACT

FORCE-INC/MILLE PLATEAUX

IMPRESSUM

DATENSCHUTZERKLÄRUNG

## TAXONOMY

CATEGORIES

TAGS

AUTHORS

ALL INPUT

## SOCIAL

FACEBOOK

INSTAGRAM

TWITTER